AMENDMENTS TO THE CLAIMS

Claims 1-19 (Cancelled).

20. (Currently Amended) A current pulse receiving circuit comprising:

a current-to-voltage converter circuit that converts an input current pulse to a voltage pulse;

a ~~large~~ predetermined amplitude signal detection circuit that detects that a voltage amplitude of an output signal from the current-to-voltage converter circuit is a predetermined amplitude or greater; ~~and~~

a clamp circuit that reduces a current-to-voltage conversion resistance in the current-to-voltage converter circuit and reduces a clamp level of an output voltage amplitude according to an output signal from the ~~large~~ predetermined amplitude signal detection circuit; and

a DC cancellation circuit that cancels a DC offset component in the current-to-voltage converter circuit, wherein an effect of canceling the DC offset component in the DC cancellation circuit is reduced according to an output signal from the predetermined amplitude signal detection circuit.

21. (Original) The current pulse receiving circuit according to claim 20, wherein: the input current pulse is an output signal from a photodetector.

22. (Cancelled).

23. (Currently Amended) The current pulse receiving circuit according to claim 20, wherein:

the current-to-voltage converter circuit is provided with a current-to-voltage conversion resistance component, and

the clamp circuit is provided with a bias circuit and an emitter-follower transistor or a diode that is connected in parallel with the current-to-voltage conversion resistance component and biased to a conductive state by the bias circuit according to an output signal from the ~~large~~ predetermined amplitude signal detection circuit.

24. (Original) The current pulse receiving circuit according to claim 23, wherein:

the bias circuit has temperature characteristics that suppress temperature characteristics of the emitter-follower transistor or the diode.

25. (Original) The current pulse receiving circuit according to claim 20, wherein:

the current-to-voltage converter circuit has a differential input configuration and is provided with a dummy load connected to a non-input terminal.

26. (Currently Amended) The current pulse receiving circuit according to claim 20, wherein:

the ~~large~~ predetermined amplitude signal detection circuit is provided with a time constant circuit that outputs an output signal when the voltage amplitude of the output signal from the current-to-voltage converter circuit is a predetermined amplitude or more for a predetermined period of time.

Claims 27-31 (Cancelled).

32. (Original) The current pulse receiving circuit according to claim 20, further comprising:

an automatic threshold value adjustment circuit or an automatic gain adjustment circuit that limits the output signal from the current-to-voltage converter circuit to within a predetermined voltage amplitude range.

33. (New) A current pulse receiving circuit comprising:

a current-to-voltage converter circuit that converts an input current pulse to a voltage pulse;

a predetermined amplitude signal detection circuit that detects that a voltage amplitude of an output signal from the current-to-voltage converter circuit is a predetermined amplitude or greater; and

a gain conversion section that converts a current-to-voltage conversion resistance in the current-to-voltage converter circuit from predetermined gain to logarithmic function gain according to an output signal from the predetermined amplitude signal detection circuit.

34. (New) The current pulse receiving circuit according to claim 33, wherein the input current pulse is an output signal from a photodetector.

35. (New) The current pulse receiving circuit according to claim 33, further comprising:

a DC cancellation circuit that cancels a DC offset component in the current-to-voltage converter circuit, wherein an effect of canceling the DC offset component in the DC cancellation circuit is reduced according to an output signal from the predetermined amplitude signal detection circuit.

36. (New) The current pulse receiving circuit according to claim 33, wherein the current-to-voltage converter circuit is provided with a current-to-voltage conversion resistance component, and the gain conversion section is provided with a bias circuit and an emitter-follower transistor or a diode that is connected in parallel with the current-to-voltage conversion resistance component and biased to a conductive state by the bias circuit according to an output signal from the predetermined amplitude signal detection circuit.

37. (New) The current pulse receiving circuit according to claim 36, wherein the bias circuit has temperature characteristics that suppress temperature characteristics of the emitter-follower transistor or the diode.

38. (New) The current pulse receiving circuit according to claim 33, wherein the current-to-voltage converter circuit has a differential input configuration and is provided with a dummy load connected to a non-input terminal.

39. (New) The current pulse receiving circuit according to claim 33, wherein the predetermined amplitude signal detection circuit is provided with a time constant circuit that outputs an output signal when the voltage amplitude of the output signal from the current-to-voltage converter circuit is a predetermined amplitude or more for a predetermined period of time.

40. (New) The current pulse receiving circuit according to claim 33, further comprising:

an automatic threshold value adjustment circuit or an automatic gain adjustment circuit that limits the output signal from the current-to-voltage converter circuit to within a predetermined voltage amplitude range.